

Title (en)

APPARATUS FOR DETERMINING AN INDICATOR REPRESENTATIVE FOR A PHYSIOLOGICAL PARAMETER

Title (de)

VORRICHTUNG ZUR BESTIMMUNG EINES INDIKATORS, EINEN PHYSIOLOGISCHEN PARAMETER DARSTELLEND

Title (fr)

SYSTEME PERMETTANT DE DETERMINER UN INDICATEUR REPRESENTATIF D'UN PARAMETRE PHYSIOLOGIQUE

Publication

EP 4008245 A1 20220608 (EN)

Application

EP 20211323 A 20201202

Priority

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Abstract (en)

The invention relates to an apparatus for determining an indicator that is representative of a physiological parameter like a fluid responsiveness parameter. The indicator is determined based on a fitting of a functional prototype to data values (sO) determined from pulse signals measured over subsequent respiratory cycles. The fitting process is accelerated by a) reducing the number of data values before fitting, b) determining an initial fit parameter value for the functional prototype based on characteristics of the data values and/or a fit parameter value known from a previous fitting, and/or c) carrying out the fitting in several stages, wherein the number of data values used is increased from stage to stage and a fit parameter value determined in a previous stage is used as initial fit parameter value in a current stage. This allows for a faster determination of, for instance, a fluid responsiveness parameter.

IPC 8 full level

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CPC (source: EP US)

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Citation (applicant)

- EP 2759257 B1 20160914 - UP MED GMBH [DE]
- WO 2014121945 A1 20140814 - UP MED GMBH [DE]
- WO 2018210931 A1 20181122 - UP MED GMBH [DE]

Citation (search report)

- [XYI] US 5704362 A 19980106 - HERSH LAWRENCE T [US], et al
- [YD] EP 2759257 B1 20160914 - UP MED GMBH [DE]
- [X] US 5577508 A 19961126 - MEDERO RICHARD [US]
- [X] CN 105342590 A 20160224 - ZHEJIANG MANSI NETWORK TECHNOLOGY CO LTD
- [X] POOI LIM ET AL: "Improved Measurement of Blood Pressure by Extraction of Characteristic Features from the Cuff Oscillometric Waveform", SENSORS, vol. 15, no. 6, 16 June 2015 (2015-06-16), pages 14142 - 14161, XP055472873, DOI: 10.3390/s150614142

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